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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/431,593 11/01/99 UEDA

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EXAMINER

MMC2/0801

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ART UNIT

PAPER NUMBER

2815
DATE MAILED:

08/01/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/431,593

Applicant(s)

UEDA, YOSHINORI

Examiner

Matthew E. Warren

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to the Election filed on May 17, 2001.

Election/Restrictions

Applicant's election with traverse of claims 1-8 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that "all of the inventions are sufficiently related to each other. This is not found persuasive because the two inventions are classified in two separate subclasses. An examiner who specializes in one subclass would find it difficult to conduct a thorough search of another subclass. A burden is placed on the examiner in such a situation. The requirement is still deemed proper and is therefore made FINAL.

Claim 9 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5.

Drawings

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 10A. Correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is vague because it states that "a second resistance pattern provided adjacent to said second resistance pattern." This does not make sense because it is not possible for an object to be adjacent to itself.

Claim 1 recites the limitation "said resistance pattern" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 is also vague because it states that "said second resistance pattern is formed on a device isolation film covering the substrate, said second resistance pattern including a first polysilicon pattern..." The limitation is confusing because the parent claim 1 indicated that the second resistance pattern was "provided adjacent the 'first resistance' pattern at a second level lower than the first level..." The claim 7 limitation does not structurally make sense after reading claim 1. Also, it is not clear whether the limitation "defined by said first resistance pattern" is in reference to the second resistance pattern or the salicide region. The confusion of claim 7 has ultimately trickled down to claim 8 in that structure of the device cannot be determined either.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-8, as far as understood, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ohno (US 5,621,232).

Claims 1-3, 5, 7, and 8, as far as understood, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Groover, III et al. (US 4,804,636).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naem (US 5,911,114).

Naem discloses (fig. 1E and col. 2, line 50 – col. 3, line 12) a semiconductor device comprising a Si substrate and a resistance pattern formed on the substrate. The pattern comprises a first resistance pattern (on Field OXide region) on the substrate at

a first level and a second resistance pattern (source/drain) provided adjacent the first resistance pattern at a second level (in the substrate) lower than the first level. The second resistance pattern is connected in series to the first resistance pattern through a TiN local interconnect and has an edge defined by the first resistance pattern (edge of FOX region). The resistance pattern comprises an interlayer insulation pattern (gate dielectric) under the first resistance pattern and the second resistance pattern is lower than the insulating layer. The first resistance pattern includes a polysilicon pattern and a polycide region. The device further comprises a MOS transistor having a polysilicon gate that is identical in composition to the polysilicon pattern. The second resistance pattern is formed in the substrate in the form of a salicide region defined by the first resistance pattern. Naem shows all of the elements of the claims except the first resistance pattern and the second resistance pattern having identical resistance. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a first and second resistance pattern having identical resistance values, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen et al. (US 5,977,598), Wilmsmeyer (US 5,387,535), Nasr

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(US 5,266,156), and Kuroda (JP63-133672A) all disclose first and second resistance patterns connected in series.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Warren whose telephone number is (703) 305-0760. The examiner can normally be reached on Mon-Thurs, and alternating Fri, 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

MEW
MEW
July 30, 2001


EDDIE LEE
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